

NATIONAL DISASTER RESILIENCE COMPETITION

Background

The U.S. Department of Housing and Urban Development's (HUD) Community Development Block Grant-Disaster Recovery (CDBG) funds from the Disaster Relief Appropriations Act of 2013 makes approximately \$820 million available to all states and local governments that experienced a Presidentially-declared major disaster in 2011, 2012, and/or 2013. The competition will support innovative resilience projects at the local level while encouraging communities to adopt policy changes and activities that plan for the impacts of extreme weather and climate change and rebuild affected areas to be better prepared for the future.

The competition underscores the ability communities have to not only recover from recent disasters but also rebuild better and stronger for the future. It encourages them to engage local stakeholders, nongovernmental organizations and the philanthropic sector to protect their own communities from the impacts of climate change by enhancing resilient infrastructure, building on sound science, and deploying innovative approaches to investments.

Wisconsin had a Presidentially-declared disaster declaration in each of the years covered by the competition:

- 2011 Severe Winter Storm and Snowstorm (DR-1966) occurring from January 31 to February 3, 2011;
- 2012 Severe Storms and Flooding (DR-4076) occurring from June 19 to June 20, 2012;
- 2013 Severe Storms, Flooding, and Mudslides (DR-4141) occurring from June 20 to June 28, 2013.

The storm events of those three years affected a total of 18 counties. The Wisconsin Department of Administration's Division of Housing (DOH) in coordination with Wisconsin Emergency Management (WEM) reviewed the Damage Assessment Information submitted by the affected counties. In addition, DOH contacted each of the counties in an effort to identify areas that qualified as most impacted and distressed relative to the effects of the Qualified Disaster and have unmet recovery needs.

NDRC Target Community: City of Superior, Wisconsin

Qualifying Disaster Event: Presidential Disaster Declaration #4076

On June 24th and 25th, 2012 Douglas County in northwestern Wisconsin experienced over 8 inches of rain causing significant damage to roads, infrastructure and residences throughout the County. The City of Superior located at the tip of Lake Superior experienced the most severe damages in Douglas County. The affected area included commercial, residential and infrastructure as well as the campus of the University of Wisconsin Superior (UWS) campus

where damages exceeded \$15,000,000. After conducting initial damage assessments in the community, the City instituted a state of emergency.

The impact of the June 2012 storm was magnified in that it was the fifth time in a year that Douglas County was hit with devastating weather, and the second time within three weeks. The event of June 19-20 caused serious disruption to the function and services of the University of Wisconsin-Superior (UW-S). Initial estimates to the flooded power plant, power distribution tunnels and 14 buildings with water damage was over \$8.7 million. The power plant had over 35 feet of water inside, with more than a foot on the ground floor and filled to the top in the basement and sub-basement. The library had in excess of 175,000 books removed for possible restoration. UW-S aggressively pursued recovery options and was able to open in August for the fall semester. In addition to single example, Douglas County estimated that 4% of occupied homes had water and/or sewage in their basements.

The response to the disaster was swift and comprehensive:

- Law enforcement, fire departments, highway departments, public works and emergency management insured that impassible roads and culvert washouts were quickly identified and marked for public safety.
- Many volunteer organizations, such as American Red Cross and Salvation Army established shelters to individuals displaced from their homes and unable to secure other lodging arrangements.
- Douglas County opened their emergency operations center the morning of June 20 to coordinate response and recovery efforts.
- The Gordon Correction Facility provided two teams of five inmates and supervisory staff to assist city and county agencies with debris removal.
- The Douglas County Health and Human services department coordinated efforts to insure housing and unmet needs were addressed, along with coordinating volunteer assistance.
- Douglas County Emergency Management participated in meetings with the Aligned Regional Economic Recovery Team (ALERT), organized to communicate and coordinate a business-focused recovery response to the flood disaster and to set the stage for efficient and effective assistance to businesses within the Twin Ports of Duluth and Superior. They also worked closely with the Business Development Association, City of Superior Chamber of Commerce and Business Improvement District.

Proposed Project Focus: Infrastructure

The City of Superior's combined sewer system in the central business district experienced the greatest damage from the 2012 rain event. Combined sewer systems are sewers that are designed to collect rainwater runoff, domestic sewage, and industrial wastewater in the same pipe. During

significant rain events like the June 2012 storms the wastewater volume in the combined sewer system exceeds the capacity of the sewer system. For this reason, combined sewer systems are designed to overflow occasionally and discharge excess wastewater directly to nearby streams, rivers, or other water bodies. When a combined sewer overflows or backs up into basements, the flood water contains not only stormwater but the untreated human and industrial waste, toxic materials and debris. Health and safety concerns associated with raw sewage are just as important as the flooding itself.

In coordination with a scheduled Wisconsin Department of Transportation (WisDOT) street project, the City of Superior proposes to utilize NDRC funding to extend a new storm sewer system along Belknap and Poplar Avenues in 2016 and 2017. The resulting removal of stormwater from the combined system will achieve a reduction in the combined sewer system hydraulic grade line, which equates to less expected damages from future significant storm events. The elimination of the additional flow into a combined system will also dramatically decrease the raw sewage flooding occurrences in the City of Superior. Overall, the project will impact approximately 50 acres of the most highly developed area in the Central Business District.

Resilience Factors: In addition to the direct impact gained from the elimination of the combined sewer system, the City of Superior will be engage a large section of the community in a broader discussion and planning sessions around water quality issues, particularly as they impact northwest Wisconsin, Lake Superior and neighboring Duluth, Minnesota.